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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/894,351 10/27/97 REDECKER

K 306.35565X00

EXAMINER

PM82/0829

ANTONELLI TERRY STOUT & KRAUS
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON VA 22209

MILLER, E

ART UNIT

PAPER NUMBER

3641
DATE MAILED:

08/29/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/894,351

Applicant(s)

REDECKER ET AL.

Examiner

Edward A. Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 5, 6 and 8-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7 is/are rejected.
- 7) ☒ Claim(s) 9-11, 14 and 28-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 06 June 2001 has been entered.

3. Note that the amendment filed 11 February 2000, initially appeared to be a duplicate of the amendment filed 21 January 2000. To the extent that it was not, applicant should take appropriate action, as the 11 February 2000 reply was not entered, as not complying with 37 C.F.R. 1.121, as it existed then. What was bracketed and inserted in the February amendment clearly did not comport with the claims as they existed, after entry of the amendment filed 21 January 2000.

4. As a result of reconsideration of the matter of paragraph 3, it is now found that claim 7 is properly multiply dependent. Claims 9-11, 14 and 28-29 are withdrawn from consideration as being improperly multiply dependent, and will not be further considered on the merits.

5. The restriction/election of the prior prosecution continues in this RCE. It now appears that claim 16, as best understood, requires a plurality of fuel compounds, not as in the elected species which correspond to Examples 1, 2 and 4 in the specification. Thus, claims 5-6, 8, 12-13, 15-18, 25-27 and 30 are withdrawn as being to non-elected species, as best understood. Claims 19-24 correspond to non-elected inventions.

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6. Claims 1-4, and 7 (as dependant on claims 1-4) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims, although improved, remain indefinite such that it cannot be determined what the intended invention is. In claim 1, lines 2-3, the recitation of "nitrogen-containing compounds" (both instances) in the plural renders the claim indefinite, as it appears that more than one fuel is required, while in the examples in the specification, only one fuel is used in each example. This also contrasts with the language for the oxidant in claim 1, which is singular, even though at least three oxidant compounds are required. This singular vs. plural language problem exists throughout. The catalyst language in claim 1 at the end is indefinite and cannot be understood. One possibility is that this requires a heterogeneous catalyst like an automobile catalytic converter. However, such outboard device clearly would not be part of the claimed composition. On the other hand, what is a homogeneous catalyst? Does this require that all compounds be in the same phase, e.g., dissolved as in a solid solution? Further, "capable of" goes only to intent, not accomplishment. The catalyst language cannot be understood, as internally contradictory and/or imply something not stated. Such language does not serve to set forth the metes and bounds of the claimed invention, whereby the claims are indefinite. In claim 2, third from the last line, "is substituted," with what? In claim 3, line 10, " $R_2 R_3$ " is indefinite; either one of the R groups should be cancelled, or a conjunction is needed. In claim 3, line 2, the "R" substituent (followed by a comma) lacks antecedent basis in claim 2 from which it depends. These remain exemplary, only.

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In claims which are non-entered, e.g., as non-elected (but subject to reinstatement if a generic claim is found allowable) or withdrawn as improperly multiply dependent, a range of indefiniteness problems are found. These are not rejected, as the claims are withdrawn from consideration. However, if they become rejoined, applicants may wish to perform preventative maintenance on the claim language, as it were. There are instances where a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim), which is indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

7. Claims 1-4, and 7 (as dependant on claims 1-4) are rejected under 35 U.S.C. 103(a) as being unpatentable over Blau et al., in view of Lund et al. '059, Wardle et al., Highsmith et al., and Yoshida et al. '446.

Blau et al. teach the basic invention which includes tetrazole fuel, with various oxidizers, including metal oxides, metal peroxides, perchlorates, nitrates, and mixtures thereof. Note the Abstract and col. 2, lines 30-32, e.g. Further detail is found at col. 5, lines 22-55 for fuels, and

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oxidizers at col. 6, lines 1-21, and additives at col. 6, lines 31-57. Substitution of specific notoriously well known ingredients, amounts or specific mixtures thereof would have been obvious to one of ordinary skill in the art. Note Lund et al. '059 col. 5, lines 1-50 e.g., as well as "Table 3" with a plurality of oxidizers. Wardle et al. teach zinc peroxide at col. 3, lines 20 and 22. Highsmith et al. generally suggests mixtures and the examples teach a plurality of oxidizers, e.g. Yoshida et al. '446, is further relevant, showing three oxidizers in "Table 1", "Example 15", e.g. This also shows ADCA, evidently a derivative of at least one of the recited fuels in claim 1, and thus also possibly being, in view of the indefiniteness of the claims, the epitome of obviousness, anticipation. It is well settled that optimizing a result effective variable is well within the expected ability of a person or ordinary skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980), *In re Aller*, 220 F. 2d 454, 105 USPQ 233 (CCPA 1955).

8. Note Lundstrom '929, and that the time period of 35 USC 135 (b) has tolled. Applicants are precluded by law from presenting a claim drawn to the same patentable invention.

9. Any inquiry concerning either this or an earlier communication from the Examiner should be directed to Examiner Edward A. Miller at (703) 306-4163. Examiner Miller may normally be reached daily, except alternate Fridays, from about 9:30 AM to 7 PM.

If attempts to reach Examiner Miller by telephone are unsuccessful, his supervisor Mr. Carone can be reached at (703) 306-4198. The Group fax number is (703) 305-7687.

If there is no answer, or for any inquiry of a general nature or relating to the application status, please call the Group receptionist at (703) 308-1113.

Miller/em
August 27, 2001



EDWARD A. MILLER
PRIMARY EXAMINER